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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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COUNTRY : Germany (Sov Zone)

DATE DISTR. 4 JUN 52

SUBJECT : "Stalin's Organ"-- An Experimental
Installation for the Production of
Heavy Water

NO. OF PAGES 2

PLACE
ACQUIRED:

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NO. OF ENCLS. 1
(LISTED BELOW)DATE
ACQUIREDSUPPLEMENT TO
REPORT NO.

DATE OF INFORMATION:

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Background:

1. [] previously provided information on Soviet development of
heavy water installations, including the unit known as "Stalin's
Organ", []

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port as Enclosure (A). [] explanation of its operation, []
[] appears below.

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Explanation of Enclosure (A)

2. Heavy water of low concentration passes from catalyst cell one to cells
2, 3, etc, and flows from the last cell as about 95% heavy water. It
then goes to an electrolytic cell in the center of the ring of catalyst
cells where it is partially decomposed with an electric current. The

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oxygen comes off as waste, while the hydrogen, with a high percentage of deuterium content, is circulated back through the catalyst cells from the last cell to the first in the direction counter to the flow of the water. About 25% of KOH is added to the electrolytic cell as an electrolyte. The water obtained from the electrolytic cell, after being partly electrolyzed, is 99-100% heavy water

-end-

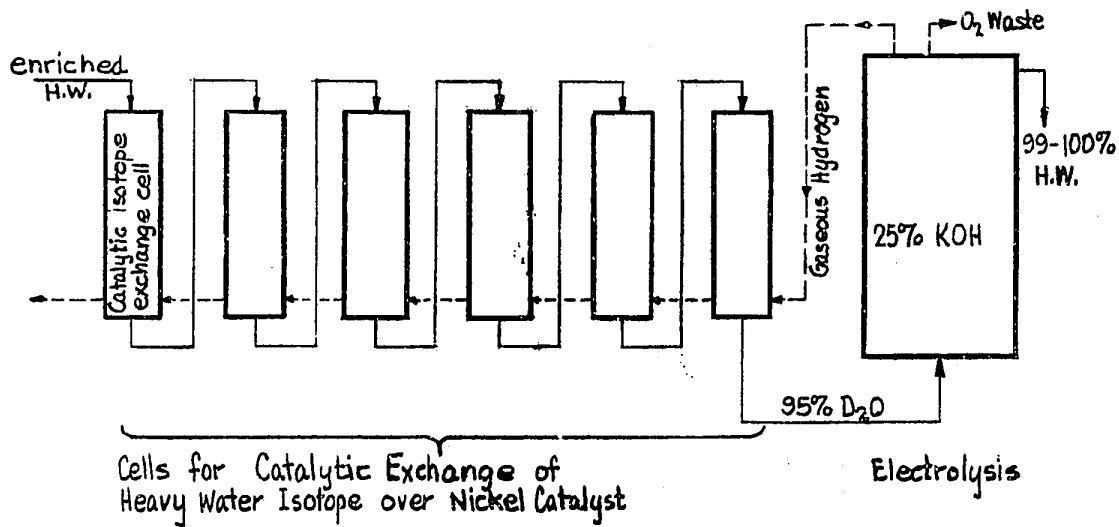
Enclosure (1) -- Stalin's Organ (Experimental Installation for the Production of Heavy Water)

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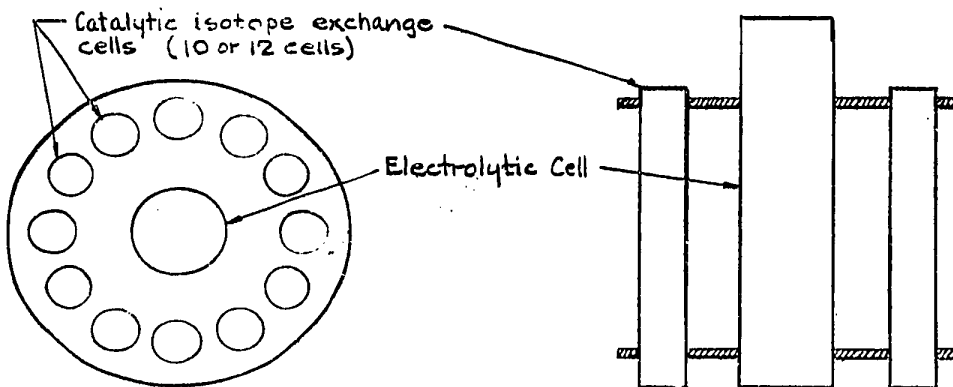
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ENCL. A



DIAGRAMATIC SKETCH OF HEAVY WATER PRODUCTION



PLAN VIEW of Installation

VERTICAL SECTION of INSTALLATION

"STALIN'S ORGAN"

(EXPERIMENTAL INSTALLATION FOR THE PRODUCTION OF HEAVY WATER)

ENCLOSURE (1)

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